

USAID Climate Change Initiative Indicators Revised - February 1999

OVERVIEW

In June 1997, President Clinton committed the U.S. to providing at least \$1 billion over five years to assist developing and transition countries to combat the threat of global climate change. As the lead U.S. agency working in developing and transition countries, the Administration looked to USAID to fulfill this commitment. As a result, USAID launched its Climate Change Initiative (CCI) to implement the agency's climate change action plan for FY 1998-2002. Establishment of the CCI prompted a second step: the development of a plan to measure and report progress under the Initiative.

G/ENV was given the lead for tracking the implementation and results monitoring of USAID activities under the CCI. To do this, an Agency-wide team developed and refined indicators to capture the impact of climate change-related programs supported by USAID. Results captured through this effort will be reported annually (beginning in May, 1999) to the U.S. Congress and Administration and will constitute USAID's intra-agency tracking efforts under the Agency Objective for climate change.

REPORTING

This year marks the first year that reporting for the CCI is incorporated into R4 reporting. Each operating unit attributing resources to the CCI (see attached list of missions) must report on the relevant attached indicators through an information annex to their R4 submission. In addition, operating units are requested to provide a brief narrative (maximum 2-3 pages) of key accomplishments of these activities for inclusion in the annual report. The narrative should also describe extraordinary activities (i.e. forest fire response) that provide a climate change benefit not covered by the indicators.

The results and indicators in this packet have been reviewed Agency-wide and modified based on extensive comments from Bureaus and Missions, both prior to and resulting from the baseline data collection effort in Fall 1998. Most notably, the current packet has been expanded to include institutional capacity indicators for each of the three results that formally define the CCI, as requested by several missions. Additional changes should be suggested to the Global Climate Change Team, as field activities require.

Please note the following:

- This will be the second round of reporting on the climate change indicators for most operating units. Baseline data collected in Fall 1998 documented cumulative results from existing climate-related activities through FY 97. The current submission requests results from activities achieved during FY 98.

- Missions should report on as many indicators as possible except where they are clearly irrelevant to the Mission's program, or where the level of achievement of the indicator is beyond the manageable interest of the Mission's program.
- Missions should report on all biodiversity, forestry, agriculture, health, energy, urban, and other activities, which have climate change implications.
- Missions do not need to create new climate change Strategic Objectives or Results under which to report on these indicators. These GCC indicators are reported in the information annex to Mission R4s only, unless also tracked in the Mission's own performance monitoring plan (PMP).
- If FY 98 was the first year for your climate-related activity, your baseline should be zero, and results from work initiated should be reflected in current reporting.
- Because of the limited time between the release of this guidance and the submission of R4s, operating units are not required to report on result #4, "Reduced vulnerability to the threats posed by climate change for FY 98, as originally planned. However, if information exists on vulnerability activities and can be easily reported, G/ENV welcomes submission.
- The package has been divided into sections according to four desired results. Each section includes descriptions of each indicator, and forms to use to submit data for that indicator. The results are:
 - 1: Increased participation in the Framework Convention on Climate Change (UNFCCC)
 - 2: Reduced net greenhouse gas emissions from the land use/forest management sector
 - 3: Reduced emissions from the energy sector, industry and urban areas
 - 4: Reduced vulnerability to the threats posed by climate change

G/ENV will collect and compile the data for the indicators from the attached data collection forms. Please submit completed data forms with a brief narrative in an information annex to your R4. More detailed instructions for the data collection tables are provided on the following pages.

For questions on specific indicators or the Initiative reporting process, please contact:

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Key Countries/Regions attributing to USAID's Climate Change Initiative for FY 1998:

Brazil	India	Poland
Central Africa	Indonesia	Russia
Central America	Mexico	South Africa
Central Asia	Philippines	Ukraine

LAC:

Bolivia	Jamaica	Panama
Ecuador	LAC/RSD	Paraguay
Guatemala	Nicaragua	Peru
Honduras		

ANE:

Egypt	Nepal	US-AEP
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AFR:

FEWS	Madagascar	Uganda
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ENI:

Armenia	Georgia	Moldova
Albania	Lithuania	NIS Region
Bulgaria	Macedonia	Romania
CEE Regional		

G Bureau:

EGAD	G/ENV/ENR	G/ENV/UP	G/ENV/EET
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PPC, OFDA

RESULT 1: INCREASED PARTICIPATION IN THE FRAMEWORK CONVENTION ON CLIMATE CHANGE

A significant component of USAID's contribution to the USG post-Kyoto negotiating strategy is to assist developing countries in building the institutional and human capacity to undertake meaningful participation in international efforts to reduce greenhouse gas emissions. Although the definition of meaningful participation will undoubtedly entail different things for different countries, there are some key indicators that missions can use to determine what progress they are making to help countries achieve this goal. Some of these are easily measured, such as whether a Joint Implementation (JI) project is undertaken with USAID's assistance. Other indicators present more difficult subjects for measuring success, such as whether USAID has assisted a country to integrate climate change into its strategic planning process.

Indicator 1: Policy Development Supporting the Framework Convention on Climate Change

In order to measure USAID's contribution to encouraging and facilitating meaningful participation by developing countries in the UNFCCC, we have created a list of activities that would constitute "meaningful participation." Using a single indicator, the Agency can report on its contribution to U.S. diplomatic goals. Because development and implementation of a policy is a process that can take many years, the indicator is indexed to record progress in this continuum.

The table on the following page lists the ways in which an USAID-assisted country might be viewed as participating in the UNFCCC. One point should be given for each achievement in any of the following areas:

(More than one point can be awarded in a given area if, for example, USAID can be credited with helping generate more than one JI project.)

- integration of climate change into national strategic, energy, and sustainable development strategies
- national emissions inventory
- national mitigation analysis
- national vulnerability and adaptation analysis
- National Climate Change Action Plan
- procedures for receiving, evaluating, and approving JI proposals
- procedures for monitoring and verifying greenhouse gas emissions
- growth baselines for pegging greenhouse gas emissions to economic growth
- legally binding emission reduction targets and timetables
- flexible market mechanisms.

Unit: Policy steps achieved

Definitions:

Adaptation: adjustments in practices, processes or structures of systems to projected or actual changes of climate (may be spontaneous or planned).

Emissions inventory: detailed listing of GHG sources and sinks.

Growth Baselines: An approach that would link countries' emissions targets to improvements in energy efficiency.

Joint Implementation (JI): The process by which industrialized countries can meet a portion of their emissions reduction obligations by receiving credits for investing in GHG reductions in developing countries.

Mitigation: an action that prevents or slows the increase of greenhouse gases (GHGs) by reducing emissions from sources and sinks.

National Climate Change Action Plan: plans that delineate specific mitigation and adaptation measures that countries will implement and integrate into their ongoing programs. These plans form the basis for the national communications that countries submit to the UNFCCC Secretariat.

UNFCCC: the object of this convention is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.

Policy Steps:

1. Policy preparation and presentation: Draft bill, policy or regulation, vetted through relevant stakeholders in government, non-government, the private sector and civil society, and introduced for debate in appropriate legislative, regulatory, or governmental body.
2. Adoption: Policy intervention is approved and adopted by the appropriate administrative agency or legislative body. Can take the form of the voting on a law; the issuance of a decree, etc.
3. Implementation and enforcement: Actions that put the policy interventions into effect, such as agency personnel trained in procedures, appropriate institutions created or strengthened, or legislation implemented through the appropriate government agency.

Indicator 2: Increased capacity to meet requirements of the UNFCCC

This indicator tracks progress in strengthening institutions or increasing technical capacity to meet the requirements of the UNFCCC.

Unit: Number of points

Indicator 1: Policy Development Supporting the Framework Convention on Climate Change

Instructions: Please report on each policy measure addressed with USAID support or as a result of USAID efforts. Check the policy steps (1, 2 and/or 3) **that have been achieved** for each policy measure and list the activity(ies) that contribute to achievement of the policy steps in the last column.

Unit: Number of policy steps achieved

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Country: _____ Policy Measure	Check Steps that Have Been Achieved			List Activity(ies) Contributing to Each Policy Category
	Step 1: Policy Preparation and Presentation	Step 2: Policy Adoption	Step 3: Implementat ion and Enforcemen t	
Integration of climate change into national strategic, energy, and sustainable development strategies				
Emissions inventory				
Mitigation analysis				
Vulnerability and adaptation analysis				
National Climate Change Action Plan				
Procedures for receiving, evaluating, and approving joint implementation (JI) proposals				
Procedures for monitoring and verifying greenhouse gas emissions				
Growth baselines for pegging greenhouse gas emissions to economic growth				
Legally binding emission reduction targets and timetables.				
Sub-total: Number of policy steps achieved				
Total policy steps achieved				

Indicator 2: Increased capacity to meet requirements of the UNFCCC

This indicator measures categories in which capacity is strengthened through training/technical assistance. Please report on each category addressed with USAID support or as a result of USAID efforts. Please check whether capacity is strengthened through training, technical assistance or both, and list the activity(ies) that contribute to each of the capacity building categories. Please report on other areas not listed, if appropriate.

Country: _____ Categories	Types of Support Provided		List the Activity(ies) that Contribute to Each Capacity Building Category
	Training	Technical Assistance	
Monitoring and verifying GHG emissions			
Growth baselines for pegging GHG emissions to economic growth			
Development of emissions reduction targets and timetables			
Support for activities implemented jointly			
Other			
Total number of points for Training/technical assistance			

RESULT 2: REDUCED NET GREENHOUSE GAS EMISSIONS FROM THE LAND USE/FOREST MANAGEMENT SECTOR

Indicator 1: Area where USAID has initiated interventions to maintain or increase carbon stocks or reduce their rate of loss.

In order to capture the full scope of USAID land use activities, please report on areas where USAID activities are making progress in protecting carbon stocks through preliminary interventions (on-the-ground carbon impacts may or may not have been realized). "Progress" is defined as activities which include one or more of the following:

- resource or land management plans developed
- community or household participation engaged in program implementation
- resource management initiated
- monitoring and evaluation system in place
- site-specific policy constraints being addressed (as opposed to national policy work captured under indicator 4).

Unit: Hectares

Indicator 2: Area where USAID has achieved on-the-ground impacts to preserve, increase, or reduce the rate of loss of carbon stocks.

This indicator captures a subset of the area reported under Indicator 1. Please report only on areas where carbon impacts have been achieved. Measurement and monitoring of biomass or carbon are not required for this indicator. Please provide a brief (two sentence) justification for including the area in this category to have available if requested during an audit (e.g., for 2a - a partner's assessment that an area has met rigorous criteria for protection, or documentation of the stabilization of forest area; for 2b - a partner's report documenting an area that has been converted from degraded agricultural land into a functional agroforestry plot).

2a. Area of natural ecosystems where carbon stocks are preserved and/or increasing (areas with *minimal or no* harvest of biomass). Areas included under this indicator are those without significant harvest of biomass. This includes protected areas, areas used for the extraction of non-timber forest products, and community managed forests with minimal timber extraction. Please report the number of hectares for areas where on-the-ground impacts have been realized and documented or where improved management techniques have been comprehensively adopted.

Unit: Hectares in each habitat type.

2b. Area of managed forest, rangeland, and agricultural lands with reduced rate of loss of carbon or increased carbon stock (areas with *moderate or high levels* of harvest of biomass). Please report hectares where reduced rates of carbon emissions or increased carbon stock are apparent (e.g., through an increase in standing biomass, decrease in decomposition or fire risk, etc). See Definitions of Terms (page 7) for a description of these categories. Please report under the following categories:

- sustainable forest management for timber using reduced impact harvesting
- agroforestry
- reforestation/afforestation
- sustainable agriculture.

Unit: Hectares in each land use category and by habitat type

Indicator 3: National/sub-national policy advances in the land use/forestry sector that contribute to the preservation or increase of carbon stocks and sinks, and to the avoidance of greenhouse gas emissions.

For this indicator, please report only on USAID-assisted major national or sub-national policies that are not captured by site-specific activities reported on through indicators 1-2. For example, include key policy achievements related to national, state or provincial law (e.g., Bolivian Forestry Law) or significant far-reaching private sector policy reforms (e.g., National Environmental Action Plans) but not those affecting a specific site (e.g., legal demarcation of individual site or granting of community access to single location)

One point is given for each of three steps (see data collection table on page 14) completed towards the adoption of legislation or administrative action that:

- facilitates improved land use planning
- facilitates sustainable forest management
- facilitates establishment and conservation of protected areas
- improves integrated coastal management
- decreases agricultural subsidies or other perverse fiscal incentives which hinder sustainable forest management
- corrects protective trade policies which devalue forest resources
- clarifies and improves land and resource tenure.

Unit: Points

Indicator 4: Value of public and private investment leverage (in 1997 dollars) by USAID for activities that contribute to the preservation or increase of carbon stocks and reduction of greenhouse gas emissions

4a. Value of funding leveraged directly in support of USAID activities and programs. This would include: (i) funding leveraged from partners for joint USAID activities; (ii) funding for activities in which USAID developed enabling policies, regulations, or provided pre-investment support (prorated); (iii) obligated or committed funding for direct follow-on MDB loan programs (prorated); (iv) obligated or committed funding for direct follow-on private-sector funded programs that reach financial closure (prorated); (v) joint implementation investments; (vi) Development Credit Authority investments. Due to the variety of ways that dollars leveraged may be calculated, please provide a brief description of your methodology. (See data collection table on page 13.)

Unit: U.S. Dollars

4b. Value of funding generated to replicate USAID-pioneered programs

Unit: U.S. Dollars

Indicator 5: Institutional Capacity Strengthened

5a. Increased capacity to address global climate change issues. This indicator tracks the number of USAID-assisted associations, NGOs or other public and private institutions that have been strengthened to address GCC issues in the land use/forest management sector.

Unit: Number of associations, NGOs or other public or private institutions strengthened

5b. Technical capacity strengthened through workshops, research, and/or training activities. This indicator measures categories of training or technical assistance activities that strengthen or build the capacity of host countries to prepare, adopt, implement or enforce policies listed in Indicator 3, which contribute to the preservation or increase of carbon stocks and sinks, and to the avoidance of greenhouse gas emissions.

One point is given for training and/or technical assistance in each category.

Unit: Number of points

Definition of Terms

Land use/forest management, global climate change indicators

INDICATOR 2A:

Conservation of natural ecosystems:

"Natural areas" include any areas that have not experienced serious degradation or exploitation of biomass. Areas where non-timber forest products are harvested can be counted in this category but not those that are managed for timber. The latter are included in 2b below. The distinction is important as different approaches are employed in estimating carbon for "natural areas" (2a) and "managed areas" (2b). Natural areas include: 1) protected areas; 2) areas where non-timber forest products are extracted if significant biomass is not removed (often managed as community-based forest management areas); 3) any other areas which exclude larger-scale biomass harvest from a management regime including many areas managed by communities and/or indigenous groups.

Include only the hectares where on-the-ground impacts have been documented or comprehensive management has been implemented, e.g., areas of a protected area where deforestation has been halted. It is acceptable to count parts of an area where deforestation or degradation has been stabilized, or additional areas as they achieve management goals and demonstrate that degradation has been halted.

INDICATOR 2B:

Sustainable forest management for timber, using Reduced Impact Harvesting (RIH):

A timber management activity will be considered to have a positive impact on carbon (relative to conventional methods) if it employs RIH practices and/or other key criteria. RIH is a package of practices proven to minimize environmental damage and carbon emissions during the logging of natural tropical forest. To be included, an activity must include most of the following practices:

- tree inventorying, marking and mapping
- careful planning and marking of skidder trails
- vine cutting prior to harvest, where appropriate
- directional felling of trees
- appropriate skidding techniques that employ winching and best available equipment (rubber tired skidder/animal traction) to minimize soil damage
- proper road and log deck construction
- a trained work force and implementation of proper safety practices
- fire mitigation techniques (fire breaks)
- existence of a long-term management plan.

Report on the area where government, industry or community organizations are carrying out forest management for commercial timber using the techniques above, or forest management areas that have been "certified" as environmentally sound by a recognized independent party. Only the area where sound planning and harvesting is being currently practiced should be included (not the whole concession or forest).

Agroforestry: The term "agroforestry" covers a wide variety of land-use systems combining tree, crop and/or animals on the same land. Two characteristics distinguish agroforestry from other land uses: 1) it involves the deliberate growing of woody perennial on the same unit of land as agricultural crops and/or animals either spatially or sequentially, and 2) there is significant interaction between woody and non-woody components, either ecological or economical. For our purposes, to be counted, at least 15% of the system must be trees or woody perennials grown for a specific function (shade, fuel, fodder, windbreak).

Include area of land under an agroforestry system in which a positive carbon benefit is apparent (i.e., through the increase in biomass, litter or soil organic matter). Do not include agroforestry systems that are being established on forestlands that were deforested since 1990.

Reforestation/Afforestation: The act of planting trees on deforested or degraded land previously under forest (reforestation) or on land that has not previously been under forest according to historical records (afforestation). This would include reforestation on slopes for watershed protection; mangrove reforestation or reforestation to protect coastal areas; commercial plantations and community tree planting on a significant scale, and/or the introduction of trees in non-forested areas for ecological or economic purposes.

Include area under reforestation or afforestation (i.e., plantation forests and/or community woodlots). Do not include natural forested areas which have been recently deforested for the purpose of planting trees. Do not include tree planting in agroforestry systems (include this under agroforestry).

Sustainable Agriculture: Agricultural systems that increase or maintain carbon in their soil and biomass through time by employing certain proven cultural practices known to reduce carbon transport or emission. This will require consideration of soil, water and nutrient/crop management. For reporting purposes, sustainable agriculture systems are those that employ or promote at least three of the following:

- no-tillage or reduced tillage
- erosion control/soil conservation techniques, especially on hillsides
- perennial crops in the system
- higher crop yields through better nitrogen and soil management
- long-term rotations with legumes
- the use of organic mulches, crop residues and other organic inputs into the soil
- better management of agrochemicals, by stressing careful fertilizer management that will increase yields while minimizing the use of petro-based agrochemicals which increase emissions.

Include area under sustainable agriculture as defined by the criteria above. Do not include agricultural systems that are being established on lands deforested since 1990.

FY 97 USAID-Sponsored Activities that Contribute to Climate Change Initiative

USAID activity name	Location			The Site and USAID's Involvement						Additional info you have (chose from the info codes below)	
	Country	Region, Province, or State	Site	Principle activity(ies) (list 1 per line using the activity codes below)	Area where USAID has initiated activities (hectares) (Indicator 1)	Area where USAID has conserved carbon (hectares) (Indicator 2)					
						Predominate vegetation type (1 per line; use vegetation codes below)	Natural ecosystems (2a)	Predominate managed land type (1 per line; use managed land types below)	Managed lands (2b)		
<i>Example:</i> Ecodevelopment Program	Mexico	Sierra Madre Occidental	El Complicado Biosphere Reserve	1	40,000	e	1,000			1, 2	
				1	40,000	f	500				
				5	200	k		4	150		

Instructions for Table for Compiling Land Use Data

For each site where USAID has initiated activities, pick 1 to 3 primary activity codes (from the list below) which best describe your program. *If more than one activity code applies to a site, please use a separate row to describe each activity.* For example, a USAID program could include a component to improve the internal management of a strictly protected area and also a sustainable agricultural component in the buffer zone, as illustrated in the example above.

To ensure our information is complete, please fill in all the boxes that apply. We understand that some of the quantitative information you provide may be estimates based on your best judgement.

Codes for USAID-Supported Activities:

- 1 Conservation of natural ecosystems (may include protected area management, extraction of non-timber products, etc. but *not* timber harvesting)
- 2 Sustainable forest management for timber using reduced-impact harvesting
(non-timber forest products may also be harvested)
- 3 Afforestation/reforestation/plantation forests
- 4 Agroforestry
- 5 Sustainable agriculture

Vegetation Codes:

Natural Ecosystems

- a Tropical evergreen forest
- b Tropical seasonal forest
- c Temperate evergreen forest
- d Temperate deciduous forest
- e Boreal forest
- f Temperate woodland
- g Tropical open forest/woodland
- h Tropical grassland and pasture
- i Temperate grassland and pasture
- j Tundra and alpine meadow
- k Desert scrub
- l Swamp and marsh
- m Coastal mangrove
- n Wetlands

Managed Land Types

- 1 Agricultural systems - (less than 15 % of the area under trees)
- 2 Agroforestry systems - (greater than 15 % of the area under trees)
- 3 Plantation forests - (at least 80% of the area under planted trees)
- 4 Protected areas

Codes for Available Additional Information:

- 1 Maps
- 2 Geo-referenced site coordinates
- 3 Biomass inventory
- 4 Rainfall data
- 5 Soil type data

Indicator 3: National/sub-national policy advances in the land use/forestry sector that contribute to the preservation or increase of carbon stocks and sinks, and to the avoidance of greenhouse gas emissions.

Instructions: Please report on each policy measure addressed with USAID support or as a result of USAID efforts. Check the policy steps (1, 2 and/or 3) **that have been achieved** for each policy measure and list the activity(ies) that contribute to achievement of the policy steps in the last column. Please report on other activities or policy measures not listed, if appropriate.

Unit: Number of policy steps achieved

Country: _____ Activity or Policy Measure	Scope (N or S)	Check Steps that Have Been Achieved			List Activity(ies) Contributing to Each Policy Category
		Step 1: Policy Preparation and Preparation	Step 2: Policy Adoption	Step 3: Implementation and Enforcement	
Facilitates improved land use planning					
Facilitates sustainable forest management					
Facilitates establishment and conservation of protected areas					
Improves integrated coastal management					
Decreases agricultural subsidies or other perverse fiscal incentives that hinder sustainable forest management					
Corrects protective trade policies that devalue forest resources					
Clarifies and improves land and resource tenure					
Other					
Number of points achieved per policy step					
Total policy steps					

Instructions for Data Collection Table: policy matrix

These indicators are being used to help USAID convey the climate change-related impact of policy efforts. In the land use/forestry area, this indicator focuses on policies that are intended to improve carbon stocks either directly by protecting land or improving its management, or indirectly by creating economic incentives for better land use practices and trends. Because development and implementation of a policy is a process that can take many years, the policy indicator is indexed to record progress in this continuum.

Policy Categories: Please choose the policy category below which most closely describes your policy intervention.

- facilitates improved land use planning
- facilitates sustainable forest management
- facilitates establishment and conservation of protected areas
- improves integrated coastal management
- decreases agricultural subsidies or other perverse fiscal incentives which hinder sustainable forest management
- corrects protective trade policies which devalue forest resources
- clarifies and improves land and resource tenure

Scope:

- S Subnational - policies that affect a tribal nation, province, state or region that are neither national nor site specific in impact.
- N National - policies that influence issues on a countrywide level.

Policy Steps:

1. Policy preparation and presentation: Draft bill, policy or regulation, vetted through relevant stakeholders in government, non-government, the private sector and civil society, and introduced for debate in appropriate legislative, regulatory, or governmental body.
2. Adoption: Policy intervention is approved and adopted by the appropriate administrative agency or legislative body. Can take the form of the voting on a law; the issuance of a decree, etc.
3. Implementation and enforcement: Actions that put the policy interventions into effect, such as agency personnel trained in procedures, appropriate institutions created or strengthened, or legislation implemented through the appropriate government agency.

Indicator 4: Dollars leveraged through agreements with USAID donor partners (forestry and land use sectors)

Instructions: In the first column, list all relevant activities or projects. In the right-hand columns, note the amount of 1997 dollars that are directly and indirectly leveraged by USAID for activities that contribute to the preservation or increase of carbon stocks and reduction of greenhouse gas emissions. (See Indicator 4 on page 6 for definitions.)

Activity Description	Source of Leveraged Funds	Direct Leverage (4a)	Indirect Leverage (4b)

Indicator 5: Institutional Capacity Strengthened

5a: Increased capacity to address global climate change issues

Unit: Number of institutions

Country: _____		Name of Associations, NGOs, or other Institutions Strengthened
Number of USAID-assisted associations, NGOs or other public and private institutions strengthened to address GCC issues		
Number of NGOs		
Number of Private Institutions		
Number of Research/Educational Institutions		
Number of Public Institutions		
Total Number of Institutions Strengthened:		

5b. Strengthening technical capacity through workshops, research, and/or training activities

This indicator measures categories in which capacity is strengthened through training/technical assistance. Please report on each category addressed with USAID support or as a result of USAID efforts. Please check whether capacity is strengthened through training, technical assistance, or both, and list the activity(ies) that contribute(s) to each of the capacity building categories. Please report on other areas not listed, if appropriate.

Country: _____ Category	Types of Support Provided		List the Activity(ies) that Contribute to Each Capacity Building Category
	Training	Technical Assistance	
Advancing improved land use planning			
Advancing sustainable forest management			
Advancing establishment and conservation of protected areas			
Advancing integrated coastal management			
Advancing decreases in agricultural subsidies or other perverse fiscal incentives that hinder sustainable forest management			
Advancing the correction of protective trade policies that devalue forest resources			
Advancing the clarification and improvement of land and resource tenure			
Other			
Number of categories where training and technical assistance has been provided:			

RESULT 3: DECREASED NET GREENHOUSE GAS EMISSIONS FROM THE ENERGY SECTOR, INDUSTRY AND URBAN AREAS

Indicator 1: Emissions of carbon dioxide (CO₂) equivalents avoided, due to USAID assistance (carbon dioxide, methane, and nitrous oxide)

Missions will report on any of the following six indicators that are appropriate for their programs, and USAID/W will make the necessary conversions from these results to obtain the metric tonnes of CO₂ equivalents avoided.

- MW-h or BTUs of renewable energy produced
- MW-h or BTUs of fossil fuel based energy saved through end use energy efficiency
- MW-h or BTUs of fossil fuel based energy saved through energy efficiency in generation, transmission, distribution (including new production capacity)
- MW-h or BTUs of energy produced as a result of switching to cleaner fossil fuels (including new production capacity)
- tonnes of methane (CH₄) captured from solid waste, sewage, and/or coal mining
- tonnes of nitrous oxide (N₂O) saved through improved agricultural management of soils and/or fertilizer use.

Unit: Metric tonnes of carbon dioxide equivalents

Indicator 2: Decreased CO₂ emitted per MW-h of energy produced (a *national*-scale indicator for use in those countries where national data is available. This data should be available in countries that have completed an emissions inventory).

Unit: Metric tonnes CO₂/MW-h

Indicator 3: Policy advances, due to USAID assistance, that contribute to the avoidance of greenhouse gas emissions

One point is given for each of three steps completed toward the adoption of legislation or administrative action that:

- facilitates improved demand side management or integrated resource planning
- facilitates competitive energy markets that promote market-based energy prices, decrease fossil fuel subsidies, or allow open access to independent providers
- facilitates the installation of energy efficient or other greenhouse gas reducing technologies, including improved efficiencies in industrial processes
- facilitates the use of renewable energy technologies
- facilitates the use of cleaner fossil fuels (cleaner coal or natural gas)
- facilitates the introduction of cleaner modes of transportation and efficient transportation systems
- promotes the use of cogeneration.

Unit: Points

Indicator 4: Strategies/audits that contribute to the avoidance of greenhouse gas emissions.

4.a. Number of strategies or audits completed.

Unit: One point for each strategy or audit completed

4.b. Number of strategies or audits implemented.

Unit: One point for each strategy or audit implemented

Indicator 5: Value of public and private investment leveraged (in 1997 dollars) by USAID for activities that reduce greenhouse gas emissions

5a. Value of funding leveraged directly in support of USAID activities and programs. This would include: (i) funding leveraged from partners for joint USAID activities; (ii) funding for activities in which USAID developed enabling policies, regulations, or provided pre-investment support (pro-rated); (iii) obligated or committed funding for direct follow-on MDB loan programs (prorated), (iv) obligated or committed funding for direct follow-on private-sector funded programs that reach financial closure (prorated); (v) joint implementation investments; (vi) Development Credit Authority investments. Due to the variety of ways that dollars leveraged may be calculated please provide a brief description of your methodology.

Unit: U.S. Dollars

5b. Value of funding generated to replicate USAID-pioneered programs

Unit: U.S. Dollars

Indicator 6: Institutional Capacity Strengthened

6a. Increased capacity to address global climate change issues. This indicator tracks the number of USAID-assisted associations, NGOs or other public and private institutions that have been strengthened to address GCC issues in the energy sector, industry and urban areas.

Unit: Number of associations, NGOs or other public and private institutions

6b. Strengthening technical capacity through workshops, research, and/or training activities. This indicator measures the categories of training or technical assistance activities that strengthen or build the capacity of host countries to prepare, adopt, implement or enforce policies listed in Indicator 3, which contribute to the avoidance of greenhouse gas emissions in the energy sector, industry or urban areas.

One point is given for training and/or technical assistance in each category.

Unit: Number of Points

Indicator 1: Emissions of CO₂ equivalents avoided

Instructions: For each activity contributing to this indicator, write a brief description of the activity in the first column, and write the result in whichever of the three reporting columns that corresponds to this activity. (For example, for a renewable energy activity, put the MW-h of renewable energy produced in electricity generation in column two (1a) or the BTUs of renewable energy produced in thermal combustion in column three (1a). Then put the fuel type replaced in column four (1a).) USAID/W will make the appropriate conversion into metric tonnes of CO₂ equivalents avoided.

Country: _____	1a. CO ₂ emissions avoided through renewable energy activities			1b. CO ₂ emissions avoided through end use energy efficiency improvements			1c. CO ₂ emissions avoided through energy efficiency improvements in generation, transmission, and distribution (including new production capacity)		
	MW-h produced in electricity generation	BTUs produced in thermal combustion	Fuel Type replaced ¹	MW-h saved	BTUs saved in thermal combustion	Fuel Type saved ¹	MW-h saved	BTUs saved in thermal combustion	Fuel Type saved ²
Industrial Retrofits				100		Coal			

¹ Provide fuel type replaced/saved if known. If not, USAID/W will convert MW-h based on country's 1990 fuel mix levels.

² Provide site-specific fuel type information if known. If not, USAID/W will convert MW-h based on country's 1990 fuel mix levels.

Indicator 1: Emissions of CO₂ equivalents avoided (continued)

Instructions: For each activity contributing to this indicator, write a brief description of the activity in the first column, and write the result in whichever of the three reporting columns that corresponds to this activity. (For example, for a fuel switching activity, put the MW-h of renewable energy produced in column two (1a) or the BTUs of renewable energy produced in thermal combustion in column three (1a). Then put the fuel type replaced in column four (1a). If the activity captured methane from a landfill, put the tonnes of methane captured in column six (1e).) USAID/W will make the appropriate conversion into metric tonnes of CO₂ equivalents avoided.

Country: _____ Activities:	1d. CO ₂ emissions avoided as a result of switching to cleaner fossil fuels (including new production capacity)				1e. Tonnes of methane captured from solid waste, coal mining, sewage	1f. Tonnes of nitrous oxide emissions avoided through improved agriculture
	MW-h produced in electricity generation	BTUs produced in thermal combustion	Old Fuel Type	New Fuel Type		
District heating		300,000	coal	natural gas		

¹ Provide fuel type replaced/saved if known. If not, USAID/W will convert MW-h based on country's 1990 fuel mix levels.

² Provide site-specific fuel type information if known. If not, USAID/W will convert MW-h based on country's 1990 fuel mix levels.

Indicator 2: Decreased CO₂ emitted per MW-h of energy produced

Instructions: If these data are available for your country, please enter the total amount of energy produced by the country (MW-h) and the corresponding amount of carbon dioxide emitted (metric tonnes).

Country: _____

MW-h of energy produced: _____

Corresponding metric tonnes of CO₂ emitted: _____

Indicator 3: National/sub-national policy advances in the energy sector, industry and urban areas that contribute to the avoidance of greenhouse gas emissions.

Instructions: Please report on each policy measure addressed with USAID support or as a result of USAID efforts. Check the policy steps (1, 2 and/or 3) **that have been achieved** for each policy measure and list the activity(ies) that contribute to achievement of the policy steps in the last column. Please report on other activities or policy measures not listed, if appropriate.

Unit: Number of policy steps achieved

Country: _____ Activity or Policy Measure	Scope (N or S)	Check Steps that Have Been Achieved			List Activity(ies) Contributing to Each Policy Category
		Step 1: Policy Preparation and Presentation	Step 2: Policy Adoption	Step 3: Implementation and Enforcement	
Facilitates improved demand side management or integrated resource planning					
Facilitates competitive energy markets that promote market-based energy prices, decrease fossil fuel subsidies, or allow open access to independent providers					
Facilitates the installation of energy efficient or other greenhouse gas reducing technologies, including improved efficiencies in industrial processes					
Facilitates the use of renewable energy technologies					
Facilitates the use of cleaner fossil fuels (cleaner coal or natural gas)					
Facilitates the introduction of cleaner modes of transportation and efficient transportation systems					
Promotes the use of cogeneration					
Other					
Number of points achieved per policy step					
Total policy steps					

Instructions for Data Collection Table: policy matrix:

These indicators are being used to help convey the climate change-related impact of USAID's work to promote policy reform. In the areas of energy, industry and urban development, the indicator focuses on policies that lead to increased energy efficiency and the use of renewable energy and cleaner fuel technologies. Policies listed should affect at least the community or municipal level, but policies that are national in scope should also be included. To reflect the fact that the development and implementation of a policy can take many years, the policy indicator is indexed to record incremental progress.

Policy Categories: Please choose among the policy categories below the one that most closely describes your policy interventions.

- facilitates improved demand side management or integrated resource planning
- facilitates competitive energy markets that promote market-based energy prices, decrease fossil fuel subsidies, or allow open access to independent providers
- facilitates the installation of energy efficient or other greenhouse gas reducing technologies
- facilitates the use of renewable energy technologies
- facilitates the use of cleaner fossil fuels (cleaner coal technologies or natural gas)
- facilitates the introduction of cleaner modes of transportation and efficient transportation systems
- promotes the use of cogeneration.

Scope:

- S Subnational - policies that affect a municipality, province, state, or region
N National - policies that influence issues on a countrywide level.

Policy Steps:

1. Policy preparation and presentation: Draft bill, policy or regulation, vetted through relevant stakeholders in government, non-government, the private sector and civil society, and introduced for debate in the appropriate legislative, regulatory, or governmental body.
2. Adoption: Policy intervention is approved and adopted by the appropriate administrative agency or legislative body. Can take the form of voting on a law, the issuance of a decree, etc.
3. Implementation and enforcement: Actions that put the policy interventions into effect, such as agency personnel trained in procedures, appropriate institutions created or strengthened, or legislation implemented through the appropriate government agency.

Indicator 4: Strategies/audits that contribute to the avoidance of greenhouse gas emissions

Instructions: In the first column describe the activity (e.g. "industrial pollution prevention and energy efficiency auditing in metal finishing"). In the second column, give the number of industrial firms/municipalities that have undertaken audits or developed greenhouse gas reduction strategies. In the third column provide the number of industrial firms or municipalities that have implemented the strategies or audit results.

Units: Number of strategies/audits

Country: _____	Number of audits or strategies completed	Number implemented
Activity: (please list)		
Total		

Indicator 5: Dollars leveraged through agreements with USAID donor partners (energy, industry and urban sectors)

Instructions: In the first column, list the activities or projects taking place. In the right-hand columns, note the amount of 1997 dollars that are directly and indirectly leveraged by USAID. (See Indicator 6 on page 15 for definitions).

Units: 1997 dollars

Country: _____		Direct Leverage (5a)	Indirect Leverage (5b)
Activity Description	Source of Leveraged Funds		
Total			

Indicator 6: Institutional Capacity Strengthened

6a: Increased capacity to address global climate change issues

Unit: Number of institutions

Country: _____		Name of Associations, NGOs, or other Institutions Strengthened
Number of USAID-assisted associations, NGOs or other public and private institutions strengthened to address GCC issues		
Number of NGOs		
Number of Private Institutions		
Number of Research/Educational Institutions		
Number of Public Institutions		
Total Number of Institutions Strengthened:		

6b. Strengthening technical capacity through workshops, research, and/or training activities

This indicator measures categories in which capacity is strengthened through training/technical assistance. Please report on each category addressed with USAID support or as a result of USAID efforts. Please check whether capacity is strengthened through training, technical assistance, or both, and list the activity(ies) that contribute(s) to each of the capacity building categories. Please report on other areas not listed, if appropriate.

Country: _____ Category	Types of Support Provided		List the Activity(ies) that Contribute to Each Capacity Building Category
	Training	Technical Assistance	
Improved demand side management or integrated resource planning			
Competitive energy markets that promote market-based energy prices, decrease fossil fuel subsidies, or allow open access to independent providers			
Installation of energy efficient or other greenhouse gas reducing technologies, including improved efficiencies in industrial processes			
Use of renewable energy technologies			
Use of cleaner fossil fuels (cleaner coal or natural gas)			
Introduction of cleaner modes of transportation and efficient transportation systems			
Use of cogeneration			
Other			
Total number of points for Training/technical assistance			

RESULT 4: REDUCED VULNERABILITY TO THE THREATS POSED BY CLIMATE CHANGE

The preliminary indicators to monitor USAID programs that reduce vulnerability to the threats posed by climate change do not measure performance. Rather, they are created to identify Agency programs that are reducing vulnerability to climate change (even if they were not conceived of as climate change programs) in several key areas: coastal zone management; disaster preparedness; agriculture and food security; and biodiversity and forestry. [DATA TO REPORT ON THESE INDICATORS WILL BE COLLECTED BY USAID/W IN THE FY 1998 REPORTING CYCLE. THEY ARE INCLUDED HERE FOR YOUR REVIEW.]

We recognize that there will be some overlap. That is, some activities will fall into more than one category. Please include each activity in only one place and include a reference to other relevant categories in your brief description.

Key Area

- (i) **Coastal Zones** - Number of programs that are reducing the vulnerability of coastal populations, infrastructure, habitats and living resources to accelerated sea level rise or other environmental changes associated with climate change (e.g., water availability, resource availability, temperature)
- (ii) **Emergency Preparedness** - Number of programs that are increasing ability to cope with and minimize the damage from natural disasters (e.g., drought, famine, disease outbreaks) through surveillance, early warning, emergency preparedness, capacity building, etc.
- (iii) **Agriculture and Food Security** - Number of programs that are increasing adaptability and resilience of agriculture and food systems to changes in temperature, water availability, pest and pathogen presence or prevalence, soil moisture and other changes in environmental parameters (e.g., crop diversification, water conservation and delivery, flexible market and trade systems).
- (iv) **Biodiversity/Natural Resources** - Number of programs that are increasing the adaptability of natural ecosystems and levels of biodiversity to changes in temperature, water availability, pest and pathogen presence or prevalence, soil moisture and other changes in environmental parameters (e.g., establishment of biological corridors, habitat conservation, preservation of ex situ germplasm).
- (v) **Human Health and Nutrition** - Number of programs that are reducing vulnerability to climate change through improved access to and quality of health services, vector control, nutrition and environmental health interventions.

Indicator: USAID Programs that Reduce Vulnerability to Climate Change

Key Area (i, ii, iii, iv, v)	Country	Strategic Objective (Name and Number)	Budget	Duration	Type of Prgm (see list below)	Description

Codes for Tracking and Recording Programs

<u>Key Areas</u>	<u>Program Types</u>
i. Coastal Zone	1. Urban/Infrastructure 2. Natural Resource
ii. Disaster Preparation Relief	1. Early Warning System 2. Humanitarian Response 3. Capacity Building
iii. Agriculture & Food Security	1. Research and Development 2. Policy Reform 3. Extension/Demonstration
iv. Biodiversity & Forestry	1. Preservation of Biodiversity 2. Forest Conservation
v. Human Health and Nutrition	1. Improved Quality of Health Services 2. Vector Control 3. Improved Nutrition